

PATENT COOPERATION TREATY

PCT

REC'D 01 DEC 2004

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P31824A/CWA/JAL	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/GB 03/03845	International filing date (day/month/year) 05.09.2003	Priority date (day/month/year) 05.09.2002
International Patent Classification (IPC) or both national classification and IPC E02B9/08		
Applicant ROBERT GORDON UNIVERSITY et al.		

<p>1. This International preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the opinion II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input checked="" type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 29.03.2004	Date of completion of this report 30.11.2004
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Flygare, E Telephone No. +49 89 2399-7062



INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

International application No. PCT/GB 03/03845

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-24 as originally filed

Claims, Numbers

1-28 as originally filed

Drawings, Sheets

1/8-8/8 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form..
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No.

PCT/GB 03/03845

5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).
(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees, the applicant has:

- restricted the claims.
- paid additional fees.
- paid additional fees under protest.
- neither restricted nor paid additional fees.

2. This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- complied with.
- not complied with for the following reasons:
see separate sheet

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- all parts.
- the parts relating to claims Nos. .

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Yes: Claims	5,6,15,16,17,18,19,20,21,22,24
	No: Claims	1-4,7-14,23
Inventive step (IS)	Yes: Claims	
	No: Claims	1-24
Industrial applicability (IA)	Yes: Claims	1-24
	No: Claims	

2. Citations and explanations

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No.

PCT/GB 03/03845

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB 03/03845

1. Reference is made to the following documents:

D1: US 3 978 345 A

D2: DE 199 58 409 A

Re Item IV

2. **Independent claims 25 and 26 and claims 27, 28** lack unity 'a posteriori' in the meaning of Rule 13.1 PCT because the subject-matter of independent claim 1 is not new, and, therefore, there cannot exist a single general inventive concept between independent claims 1, 25 and 26. Claims 27 and 28 depend on independent claim 26.

Re Item V

3. The present application does not meet the requirements of Article 33(1) PCT, because the subject-matter of claim **1, 2, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14 and 23** is not novel in the sense of Article 33(2) PCT.

3.1 Independent claim 1

- 3.1.1 Document **D1** discloses an apparatus (see fig. 6 in D1) for controlling underwater equipment, comprising attachment means (35, 47, 45, 46) for attaching underwater equipment (37, 42) to the apparatus; and at least one member (36) for generating positive or negative lift. Consequently, the subject-matter of independent claim 1 is not new.

- 3.1.2 Document **D2** also discloses (see fig. 1 in D2) all the technical features of independent claim 1. It can be clearly seen that the feature a (Wanne) is fully capable for generating positive lift. Therefore, the subject-matter of independent claim 1 is also not novel in the light of the disclosure of document D2.

- 3.2 The additional features of dependent claims **2, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14 and 23** are also known from document **D1**, so that the subject-matter of these claims is not new. These claims do therefore also not meet the requirements of Art. 33(2) PCT.

4. Dependent claims **5, 6, 15 to 22 and 24** do not contain any additional features which, in combination with the features of any claim to which they refer, involve an inventive step with respect to the cited state of the art. The reasons therefore are that the additional features of the said claims are either directly known from cited documents in the present proceedings or are a combination of features obvious to the man skilled in the art in consideration of the disclosure of the cited prior art or they concern only minor modifications which lie within the normal practice of the man skilled in the art.